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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,952	02/25/2004	David A. Hill	BS00-073-D2	8434
7590 08/19/2005			EXAMINER	
WITHERS & KEYS LLC P O BOX 71355 MARIETTA, GA 30007-1355			DINH, TRINH VO	
			ART UNIT	PAPER NUMBER
			2821	
DATE MAILED: 08/19/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/784,952

**Applicant(s)**

HILL, DAVID A.

**Examiner**

Trinh Vo Dinh

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on amendment filed 06/13/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-27 and 29-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-26 and 35-41 is/are allowed.
- 6) ☒ Claim(s) 27 and 29-31 is/are rejected.
- 7) ☒ Claim(s) 32-34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This is a response to amendment filed 06/13/2005. The rejections of claims 22, 27 and 35 under 35 USC & 112 second paragraph have been withdrawn in view of the amendment. However, the amended claims 27 and 29-43 necessitate a new ground of rejection as discussed below.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 27 and 29-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 27, what is meant by “metallic mesh frame”? There is no support in the specification for the “metallic mesh frame” in the specification. For a purpose of examination, the “metallic mesh frame” as the best understood by Examiner as “metallic mesh”.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redheffer (US 2,624,843 of record) in view of Berube (USP 6,673,068 of record).

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Redheffer discloses, in Fig. 1, an antenna member (6+7) of a donor antenna (6+7 +5) being surrounding with a reflecting member (9, col. 1 line 58 to col. 2 line 14, or col. 3, lines 45-47) along a longitudinal axis of the antenna member. However, Redheffer does not suggest the reflector member comprising a metallic mesh. Berube discloses reflecting member (66) comprising a copper mesh (col. 6, lines 30-40). It would have been obvious to one having ordinary skill in the art to make Redheffer's reflector member of copper mesh as taught by Berube, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended uses as a matter of obvious design choice.

5. Claims 27 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redheffer (US 2,624,843 of record) in view of Reynolds et al (USP 5,885,906 of record).

With respect to claim 27, Redheffer discloses every feature of the claimed invention as noted in the previous paragraph except metallic mesh. Reynolds discloses reflecting member (abstract) comprising a metallic mesh (col. 3, lines 49-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have Redheffer's reflector member made of metallic mesh as taught by Reynolds in order to reduce PIM as well as maintain high degree of RF reflectivity of the antenna reflector.

With respect to claim 30-31, Reynolds discloses the metallic mesh being wrapped by fiberglass fabric (col. 2, lines 5-15).

***Allowable Subject Matter***

6. Claims 22-26 and 35-41 are presently allowed.

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7. Claims 32-34 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The cited art of record fails to teach a method for making a reflecting member of a donor antenna comprising steps of coating the fabric with a liquid resin, allowing the liquid resin to solidify then removing the mold.

***Response to the arguments***

8. Respecting claim 27 that has been rejected under the doctrine of double patenting over US patent 6,351,248 and 6,724,350, the Applicant stated, in page 5 of the amendment, a terminal disclaimer had been filed along with the amendment. However, no terminal disclaimer has been received by Patent Office. The complete response to the final rejection must include the terminal disclaimer as stated by the Applicant.

9. With respect to amended claim 27, Applicant argues, in pages 7 and 8 of the argument, that although Berube or Reynolds discloses a metal mesh reflector that extended longitudinally the length of the antenna, it does not surround the antenna. However, this claimed limitation “the reflector member surrounds an antenna member” has been disclosed by the primary reference Redheffer in which the reflector member (9) surrounds an antenna member (5+6+7). Redheffer as modified by Berube/Reynolds discloses every features of the claimed invention. Therefore, 102 rejection of claim 27 is proper.

10. With respect to the rejections of dependent claims 29 and 30-31, which employing the additional teaching of Redheffer and Berube /Reynolds, Applicant has not offer any specific

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argument thereagainst. Accordingly, no further comments concerning the rejections of the dependent claims are necessary.

***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Inquiry***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (571) 272-1821. The examiner can normally be reached on Monday to Friday from 9:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Trinh Vo Dinh', with a long horizontal flourish extending to the right.

*Trinh Vo Dinh  
August 26, 2005*